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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,391	05/30/2001	Eric B. Cummings	8200-0007	7488

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REED & EBERLE LLP
800 MENLO AVENUE, SUITE 210
MENLO PARK, CA 94025

EXAMINER

LE, UYEN CHAU N

ART UNIT PAPER NUMBER

2876

DATE MAILED: 03/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/870,391

Applicant(s)

CUMMINGS ET AL.

Examiner

Uyen-Chau N. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Prelim. Amdt/Amendment

1. Receipt is acknowledged of the Preliminary Amendment filed 01 October 2001.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the array A, kernel K_m , array E, array B, array C, kernel K_c , array E', kernel K'_m , kernel K_d must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 1 and 2 are objected to because of the following informalities:

Re claim 1, line 4: Substitute "user data array A" with -- said user data array A --.

Re claim 1, line 6: Substitute "data array E" with -- said data array E --.

Re claim 1, line 8: Substitute "barcode array B" with -- said barcode array B --.

Re claim 1, line 8: Substitute "said portion" with -- a portion --.

Re claim 2, line 1: Substitute "user data array A" with -- said user data array A --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-13 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Lopresti et al (US 5,862,270 - cited by the applicant).

Lopresti et al discloses a method of recording and printing information/user data on a printed medium comprising encoding the information/user data to form an encoded user data array/stream (col. 6, lines 44+); modulating the user data array using a two-dimensional pseudo-random array and formatting the data array to produce a two-dimensional barcode array (col. 7, lines 9-36); printing the barcode array onto a portion of the printed medium (col. 7, lines 50+), wherein the recorded and printed user data is distributed evenly across the portion of the printed medium (fig. 1), wherein the user data is encoded so that the user data array additionally comprises a fiducial signature, which is the “information embedded in the barcode that is used to correct the scanned image” (as defined by the Applicant: page 8, lines 27+) (col. 9, lines 20-41); the encoded information printed on the printed medium can be read for decoding purpose (figs. 6-12; col. 8, line 15 through col. 12, line 43).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lopresti et al in view of Wang et al (US 5,337,361). The teachings of Lopresti et al have been discussed above.

Re claims 14-15, Lopresti et al has been discussed above but fails to teach or fairly suggest that up to 80% of the barcode has been obfuscated by overlaid text or graphics.

Wang et al teaches an encoded barcode 318 printed on a printed medium 316 has been obfuscated by overlaid by a graphic image 317 (fig. 1B; col. 4, lines 52+).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Wang et al into the teachings of Lopresti et al in order to provide Lopresti et al with a more security system, preventing the encoded information from being manipulated by an unauthorized user in the event of fraudulent use of the printed medium (i.e., damaging or changing the graphic image will automatically damaging/changing the encoded information and vise versa). Furthermore, such modification

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would have been an obvious extension as taught by Lopresti et al, and therefore an obvious expedient.

Re claim 16, Lopresti et al as modified by Wang et al have been discussed above but fails to teach or fairly suggest the obfuscation is caused by damage or partial destruction of the printed medium.

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the above modification into the teachings of Lopresti et al/Wang et al in order to provide Lopresti et al/Wang et al with a more reliable system wherein the lost/damaged/distorted information can be recovered, and thus providing a more user-friendly system wherein the user does not have to concern about loosing data in the event of accidentally damaging the printed medium.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents to Zhou et al (US 6,418,244); Bloomberg (US 5,168,147); Hecht (US 5,221,833); Gormish et al (US 5,337,362); Hecht et al (US 5,449,896); Li et al (US 5,644,408); Li et al (US 5,506,697); Gilham (US 4,934,846); Wang et al (US 5,471,533); Hecht et al (US 6,182,901); Schuessler et al (US 5,811,787); Liu (US 5,764,774) are cited as of interest and illustrate a similar structure to a self-registering spread-spectrum barcode method.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 703-306-5588. The examiner can normally be reached on M, T, F, SUN 9:30-7:00 and SAT 1:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL G LEE can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Uyen-Chau N. Le

March 9, 2003



KARL D. FRECH
PRIMARY EXAMINER